normal operating periods in a 12 operating months period used to determine compliance.

*Solvent extraction* means removing vegetable oil from listed oilseed using an organic solvent in a direct-contact system.

*Solvent working capacity* means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

*Specialty desolventizer* means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

*Vegetable oil production process* means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

[66 FR 19011, Apr. 12, 2001, as amended at 71 FR 20464, Apr. 20, 2006]

## Subpart HHHH—National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production

SOURCE: 67 FR 17835, Apr. 11, 2002, unless otherwise noted.

### WHAT THIS SUBPART COVERS

### § 63.2980 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for emissions from facilities that produce wet-formed fiberglass mat. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

### § 63.2981 Does this subpart apply to me?

You must comply with this subpart if you meet the criteria in paragraphs (a) and (b) of this section:

(a) You own or operate a drying and curing oven at a wet-formed fiberglass mat production facility.

(b) Your drying and curing oven or the facility at which your drying and curing oven is located is a major source of hazardous air pollutants (HAP). A major source is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or can potentially emit, considering controls, in the aggregate, 9.07 megagrams (10 tons) or more per year of a single HAP or 22.68 megagrams (25 tons) or more per year of any combination of HAP.

### § 63.2982 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing affected source. The affected source (the portion of your plant covered by this subpart) is each wet-formed fiberglass mat drying and curing oven.

(b) An affected source is a new affected source if you commenced construction of the affected source after May 26, 2000, and you meet the applicability criteria in § 63.2981 at start-up.

(c) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(d) An affected source is existing if it is not new or reconstructed.

EMISSION LIMITATIONS

### § 63.2983 What emission limits must I meet?

(a) You must limit the formaldehyde emissions from each drying and curing oven by either:

(1) Limiting emissions of formaldehyde to 0.03 kilograms or less per megagram (0.05 pounds per ton) of fiberglass mat produced; or

(2) Reducing uncontrolled formaldehyde emissions by 96 percent or more.

(b) [Reserved]

### § 63.2984 What operating limits must I meet?

(a) You must maintain operating parameters within established limits or ranges specified in your operation, maintenance, and monitoring (OMM) plan described in § 63.2987. If there is a deviation of any of the specified parameters from the limit or range specified in the OMM plan, you must address the deviation according to paragraph (b) of this section. You must comply with the operating limits specified in paragraphs (a)(1) through (4) of this section:

(1) You must operate the thermal oxidizer so that the average operating temperature in any 3-hour block period does not fall below the temperature established during your performance test and specified in your OMM plan.

(2) You must not use a resin with a free-formaldehyde content greater than that of the resin used during your performance test and specified in your OMM plan.

(3) You must operate the wet-formed fiberglass mat production process so that the average urea formaldehyde resin solids application rate in any 3-hour block period does not exceed the average application rate achieved during your performance test and specified in your OMM plan.

(4) If you use an add-on control device other than a thermal oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must obtain approval for the alternative monitoring under § 63.8(f). You must include the approved alternative monitoring and operating limits in the OMM plan specified in § 63.2987.

(b) When during a period of normal operations you detect that an operating parameter deviates from the limit or range established in paragraph (a) of this section, you must initiate corrective actions within 1 hour according to the provisions of your OMM plan. The corrective actions must be completed in an expeditious manner as specified in the OMM plan.

(c) You must maintain and inspect control devices according to the procedures specified in the OMM plan.

(d) You must include the operating limits specified in paragraphs (a)(1) through (4) of this section and their allowable ranges or levels in your OMM plan. Your 40 CFR part 70 operating permit for the drying and curing oven must contain a requirement that you develop and operate according to an OMM plan at all times.

(e) If you use a thermal oxidizer or other control device to achieve the emission limits in § 63.2983, you must capture and convey the formaldehyde emissions from each drying and curing oven according to the procedures in chapters 3 and 5 of ''Industrial Ventilation: A Manual of Recommended Practice'' (23rd Edition). This publication is incorporated by reference in § 63.3003.

[67 FR 17835, Apr. 11, 2002, as amended at 71 FR 20464, Apr. 20, 2006]

### § 63.2985 When do I have to comply with these standards?

(a) Existing drying and curing ovens must be in compliance with this subpart no later than April 11, 2005.

(b) New or reconstructed drying and curing ovens must be in compliance with this subpart at startup or by April 11, 2002, whichever is later.

(c) If your facility is an area source that increases its emissions or its potential to emit such that it becomes a

major source of hazardous air pollutants, the following apply:

(1) Any portion of the existing facility that is a new affected source or a new reconstructed affected source must be in compliance upon startup.

(2) All other parts of the source must be in compliance with this subpart 1 year after becoming a major source or by April 11, 2005, whichever is later.

### § 63.2986 How do I comply with the standards?

(a) You must install, maintain, and operate a thermal oxidizer or other control device or implement a process modification that reduces formaldehyde emissions from each drying and curing oven to the emission limits specified in § 63.2983.

(b) You must comply with the operating limits specified in § 63.2984. The operating limits prescribe the requirements for demonstrating continuous compliance based on the OMM plan. You must begin complying with the operating limits on the date by which you must complete the initial performance test.

(c) You must conduct a performance test according to §§ 63.2991, 63.2992, and 63.2993 to demonstrate compliance for each drying and curing oven subject to the emission limits in § 63.2983, and to establish or modify the operating limits or ranges for process or control device parameters that will be monitored to demonstrate continuous compliance.

(d) You must install, calibrate, maintain, and operate devices that monitor the parameters specified in your OMM plan at the frequency specified in the plan. All continuous parameter monitoring systems must be installed and operating no later than the applicable compliance date specified in § 63.2985.

(e) You must prepare and follow a written OMM plan as specified in § 63.2987.

(f) You must comply with the monitoring, recordkeeping, notification, and reporting requirements of this subpart as required by §§ 63.2996 through 63.3000.

(g) You must comply with the requirements in paragraphs (g)(1) through (3) of this section.

(1) You must be in compliance with the emission limits in § 63.2983 and the operating limits in § 63.2984 at all times, except during periods of startup, shutdown, or malfunction.

(2) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1).

(3) You must develop a written SSMP according to the provisions in § 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

[67 FR 17835, Apr. 11, 2002, as amended at 71 FR 20464, Apr. 20, 2006]

## Operation, Maintenance, and Monitoring Plan

### § 63.2987 What must my operation, maintenance, and monitoring (OMM) plan include?

(a) You must prescribe the monitoring that will be performed to ensure compliance with these emission limitations. Minimum monitoring requirements are listed in table 1 of this subpart. Your plan must specify the items listed in paragraphs (a)(1) through (3) of this section:

(1) Each process and control device to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

(2) A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

(3) The operating limits or ranges for each parameter that represent continuous compliance with the emission limits in § 63.2983. Operating limits and ranges must be based on values of the monitored parameters recorded during performance tests.

(b) You must establish routine and long-term maintenance and inspection schedules for each control device. You must incorporate in the schedules the control device manufacturer's recommendations for maintenance and inspections or equivalent procedures. If you use a thermal oxidizer, the maintenance schedule must include procedures for annual or more frequent inspection of the thermal oxidizer to ensure that the structural and design integrity of the combustion chamber is

maintained. At a minimum, you must meet the requirements of paragraphs (b)(1) through (10) of this section:

(1) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.

(2) Ensure proper adjustment of combustion air and adjust if necessary.

(3) Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.

(4) Inspect dampers, fans, and blowers for proper operation.

(5) Inspect motors for proper operation.

(6) Inspect, when possible, combustion chamber refractory lining. Clean and repair or replace lining if necessary.

(7) Inspect the thermal oxidizer shell for proper sealing, corrosion, and hot spots.

(8) For the burn cycle that follows the inspection, document that the thermal oxidizer is operating properly and make any necessary adjustments.

(9) Generally observe whether the equipment is maintained in good operating condition.

(10) Complete all necessary repairs as soon as practicable.

(c) You must establish procedures for responding to operating parameter deviations. At a minimum, the procedures must include the information in paragraphs (c)(1) through (3) of this section.

(1) Procedures for determining the cause of the operating parameter deviation.

(2) Actions for correcting the deviation and returning the operating parameters to the allowable ranges or limits.

(3) Procedures for recording the date and time that the deviation began and ended, and the times corrective actions were initiated and completed.

(d) Your plan must specify the recordkeeping procedures to document compliance with the emissions and operating limits. Table 1 of this subpart establishes the minimum recordkeeping requirements.

### § 63.2988 [Reserved]

### § 63.2989 How do I change my OMM plan?

Changes to the operating limits or ranges in your OMM plan require a new performance test.

(a) In order to revise the ranges or levels established for your operating limits in § 63.2984, you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Submit a notification of performance test to the Administrator as specified in § 63.7(b) to revise your operating ranges or limits.

(2) After completing the performance test to demonstrate that compliance with the emissions limits can be achieved at the revised levels of the operating limits, you must submit the performance test results and the revised operating limits as part of the notification of compliance status required under § 63.9(h).

(b) If you are revising the inspection and maintenance procedures in your plan that are specified in § 63.2987(b), you do not need to conduct a new performance test.

(c) If you plan to operate your process or control device under alternative operating conditions and do not wish to revise your OMM plan when you change operating conditions, you can perform a separate compliance test to establish operating limits for each condition. You can then include the operating limits for each condition in your OMM plan. After completing the performance tests, you must record the date and time when you change operations from one condition to another, the condition under which you are operating, and the operating limits that apply under that condition. If you can perform a single performance test that establishes the most stringent operating limits that cover all alternative operating conditions, then you do not need to comply with the provisions of this paragraph.

### § 63.2990 Can I conduct short-term experimental production runs that cause parameters to deviate from operating limits?

With the approval of the Administrator, you may conduct short-term experimental production runs during which your operating parameters deviate from the operating limits. Experimental runs may include, but are not limited to, runs using resin with a higher free-formaldehyde content than specified in the OMM plan, or using experimental pollution prevention techniques. To conduct a short-term experimental production run, you must complete the requirements in paragraphs (a) and (b) of this section.

(a) Prepare an application to the Administrator for approval to conduct the experimental production runs. Your application must include the items listed in paragraphs (a)(1) through (6) of this section.

(1) The purpose of the experimental production run.

(2) Identification of the affected line.

(3) An explanation of how the operating parameters will deviate from the previously approved ranges and limits.

(4) The duration of the experimental production run.

(5) The date and time of the experimental production run.

(6) A description of any emission testing to be performed during the experimental production run.

(b) Submit the application to the Administrator for approval at least 30 days before you conduct the experimental production run.

(c) If you conduct such experimental production runs without first receiving approval from the Administrator, then you must conduct a performance test under those same experimental production run conditions to show that you were in compliance with the formaldehyde emission limits in § 63.2983.

## Testing and Initial Compliance Requirements

### § 63.2991 When must I conduct performance tests?

You must conduct a performance test for each drying and curing oven subject to this subpart according to the provisions in paragraphs (a) through (c) of this section:

(a) *Initially*. You must conduct an initial performance test no later than 180 days after the applicable compliance date specified in § 63.2985. The initial performance test is used to demonstrate initial compliance and establish operating parameter limits and ranges to be used to demonstrate continuous compliance with the emission standards.

(b) *Every 5 years*. You must conduct a performance test every 5 years as part of renewing your 40 CFR part 70 operating permit.

(c) *To change your OMM plan*. You must conduct a performance test according to the requirements specified in § 63.2992 to change the limit or range for any operating limit specified in your OMM plan established during a previous compliance test.

### § 63.2992 How do I conduct a performance test?

(a) You must verify the performance of monitoring equipment as specified in § 63.2994 before performing the test.

(b) You must conduct the performance test according to the procedures in § 63.7.

(c) You must conduct the performance test under the conditions specified in paragraphs (c)(1) and (2) of this section.

(1) The resin must have the highest specified free-formaldehyde content that will be used.

(2) You must operate at the maximum feasible urea-formaldehyde resin solids application rate (pounds urea-formaldehyde resin solids applied per hour) that will be used.

(d) During the performance test, you must monitor and record the operating parameters that you will use to demonstrate continuous compliance after the test. These parameters are listed in table 1 of this subpart.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction as specified in § 63.7(e)(1).

(f) You must conduct three separate test runs for each performance test as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

### § 63.2993 What test methods must I use in conducting performance tests?

(a) Use EPA Method 1 (40 CFR part 60, appendix A) for selecting the sampling port location and the number of sampling ports.

(b) Use EPA Method 2 (40 CFR part 60, appendix A) for measuring the volumetric flow rate.

(c) Use EPA Method 316 or 318 (40 CFR part 63, appendix A) for measuring the concentration of formaldehyde.

(d) Use the method contained in appendix A of this subpart or the resin purchase specification and the vendor specification sheet for each resin lot for determining the free-formaldehyde content in the urea-formaldehyde resin.

(e) Use the method in appendix B of this subpart for determining product loss-on-ignition.

### § 63.2994 How do I verify the performance of monitoring equipment?

(a) Before conducting the performance test, you must take the steps listed in paragraphs (a)(1) and (2) of this section:

(1) Install and calibrate all process equipment, control devices, and monitoring equipment.

(2) Conduct a performance evaluation of the continuous monitoring system (CMS) according to § 63.8(e) which specifies the general requirements and requirements for notifications, the site-specific performance evaluation plan, conduct of the performance evaluation, and reporting of performance evaluation results.

(b) If you use a thermal oxidizer, the temperature monitoring device must meet the performance and equipment specifications listed in paragraphs (b)(1) through (3) of this section:

(1) The temperature monitoring device must be installed either at the exit of the combustion zone of each thermal oxidizer, or at the location specified by the manufacturer. The temperature monitoring device must also be installed in a location before any heat recovery or heat exchange equipment, and it must remain in the same location for both the performance test and the continuous monitoring of temperature.

(2) The recorder response range must include zero and 1.5 times the average temperature required in § 63.2984(a)(1).

(3) The measurement method or reference method for calibration must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference subject to the approval of the Administrator.

### § 63.2995 What equations must I use to determine compliance?

(a) *Percent reduction for formaldehyde.* To determine compliance with the percent reduction formaldehyde emission standard, use equation 1 of this section as follows:

$$E_f = \frac{M_i - M_o}{M_i} \times 100 \qquad \text{(Eq. 1)}$$

Where:

$E_f$ = Formaldehyde control efficiency, percent.

$M_i$ = Mass flow rate of formaldehyde entering the control device, kilograms (pounds) per hour.

$M_o$ = Mass flow rate of formaldehyde exiting the control device, kilograms (pounds) per hour.

(b) *Formaldehyde mass emissions rate.* To determine compliance with the kilogram per megagram (pound per ton) formaldehyde emission standard, use equation 2 of this section as follows:

$$E = \frac{M}{P} \qquad \text{(Eq. 2)}$$

Where:

E = Formaldehyde mass emissions rate, kilograms (pounds) of formaldehyde per megagram (ton) of fiberglass mat produced.

M = Formaldehyde mass emissions rate, kilograms (pounds) per hour.

P = The wet-formed fiberglass mat production rate during the emissions sampling period, including any material trimmed from the final product, megagrams (tons) per hour.

(c) *Urea-formaldehyde (UF) resin solids application rate.* To determine the UF resin solids application rate, use equation 3 of this section as follows:

$$\frac{\text{UF Solids}}{\text{Hour}} = \text{LOI} \times \text{UFL} \times \text{MW} \times \text{SQ} \qquad \text{(Eq. 3)}$$

Where:

UF solids/hour = UF resin solids application rate (pounds per hour).

LOI = loss on ignition (weight faction), or pound of organic binder per pound of mat.

UFL = UF-to-latex ratio in the binder (mass fraction of UF resin solids in total combined resin solids for UF and latex), or pound of UF solids per pound of total resin solids (UF and latex).

MW = weight of the final mat per square (pounds per roofing square).

SQ = roofing squares produced per hour.

MONITORING REQUIREMENTS

### § 63.2996 What must I monitor?

You must monitor the parameters listed in table 1 of this subpart and any other parameters specified in your OMM plan. The parameters must be monitored, at a minimum, at the corresponding frequencies listed in table 1 of this subpart.

### § 63.2997 What are the requirements for monitoring devices?

(a) If formaldehyde emissions are controlled using a thermal oxidizer, you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Install, calibrate, maintain, and operate a device to monitor and record continuously the thermal oxidizer temperature at the exit of the combustion zone before any substantial heat exchange occurs or at the location consistent with the manufacturer's recommendations.

(2) Continuously monitor the thermal oxidizer temperature and determine and record the average temperature in 15-minute and 3-hour block averages. You may determine the average temperature more frequently than every 15 minutes and every 3 hours, but not less frequently.

(b) If formaldehyde emissions are controlled by process modifications or a control device other than a thermal oxidizer, you must install, calibrate, maintain, and operate devices to monitor the parameters established in your OMM plan at the frequency established in the plan.

NOTIFICATIONS, REPORTS, AND RECORDS

### § 63.2998 What records must I maintain?

You must maintain records according to the procedures of § 63.10. You must maintain the records listed in paragraphs (a) through (g) of this section.

(a) All records required by § 63.10. Table 2 of this subpart presents the applicable requirements of the general provisions.

(b) The OMM plan.

(c) Records of values of monitored parameters listed in table 1 of this subpart to show continuous compliance with each operating limit specified in table 1 of this subpart.

(d) Records of maintenance and inspections performed on the control devices.

(e) If an operating parameter deviation occurs, you must record:

(1) The date, time, and duration of the operating parameter deviation;

(2) A brief description of the cause of the operating parameter deviation;

(3) The dates and times at which corrective actions were initiated and completed;

(4) A brief description of the corrective actions taken to return the parameter to the limit or to within the range specified in the OMM plan; and

(5) A record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(f) Keep all records specified in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(g) If you operate your process or control device under alternative operating condition and have established operating limits for each condition as specified in § 63.2989(c), then you must keep records of the date and time you changed operations from one condition to another, the condition under which you are operating, and the applicable operating limits for that condition.

### § 63.2999 In what form and for how long must I maintain records?

(a) You must maintain each record required by this subpart for 5 years. You must maintain the most recent 2 years of records at the facility. The remaining 3 years of records may be retained offsite.

(b) Your records must be readily available and in a form so they can be easily inspected and reviewed. You can keep the records on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tape, or on microfiche.

### § 63.3000 What notifications and reports must I submit?

(a) You must submit all notifications and reports required by the applicable general provisions and this section. Table 2 of this subpart presents the applicable requirements of the general provisions.

(b) *Notification of compliance status.* You must submit the notification of compliance status, including the performance test results, the operating limits or ranges as determined during the performance test, and other information specified in §63.9(h), before the close of business on the 60th calendar day after you complete the performance test according to §63.10(d)(2).

(c) *Semiannual compliance reports.* You must submit semiannual compliance reports according to the requirements of paragraphs (c)(1) through (5) of this section.

(1) *Dates for submitting reports.* Unless the Administrator has agreed to a different schedule for submitting reports under §63.10(a), you must deliver or postmark each semiannual compliance report no later than 30 days following the end of each semiannual reporting period. The first semiannual reporting period begins on the compliance date for your affected source and ends on June 30 or December 31, whichever date immediately follows your compliance date. Each subsequent semiannual reporting period for which you must submit a semiannual compliance report begins on July 1 or January 1 and ends 6 calendar months later. As required by §63.10(e)(3), you must begin submitting quarterly compliance reports if you deviate from the emission limits in §63.2983 or the operating limits in §63.2984.

(2) *Inclusion with title V report.* For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and for which the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6 (a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraph (c)(1) of this section.

(3) *Contents of reports.* The semiannual compliance report must contain the information in paragraphs (c)(3)(i) through (vi) of this section:

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) A summary of the total duration of continuous parameter monitoring system downtime during the semiannual reporting period and the total duration of continuous parameter monitoring system downtime as a percent of the total source operating time during that semiannual reporting period.

(v) The date of the latest continuous parameter monitoring system certification or audit.

(vi) A description of any changes in the wet-formed fiberglass mat manufacturing process, continuous parameter monitoring system, or add-on control device since the last semiannual reporting period.

(4) *No deviations.* If there were no deviations from the emission limit in §63.2983 or the operating limits in §63.2984, the semiannual compliance report must include a statement to that effect. If there were no periods during which the continuous parameter monitoring systems were out-of-control as specified in §63.8(c)(7), the semiannual compliance report must include a statement to that effect.

(5) *Deviations.* If there was a deviation from the emission limit in §63.2983 or an operating limit in

§ 63.2984, the semiannual compliance report must contain the information in paragraphs (c)(5)(i) through (ix) of this section:

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous parameter monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous parameter monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) The date and time that corrective actions were taken, a description of the cause of the deviation, and a description of the corrective actions taken.

(vi) A summary of the total duration of each deviation during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period.

(vii) A breakdown of the total duration of the deviations during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(viii) A brief description of the process units.

(ix) A brief description of the continuous parameter monitoring system.

(d) *Performance test reports.* You must submit reports of performance test results for add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2). You must include in the performance test reports the values measured during the performance test for the parameters listed in table 1 of this subpart and the operating limits or ranges to be included in your OMM plan. For the thermal oxidizer temperature, you must include 15-minute averages and the average for the three 1-hour test runs.

(e) *Startup, shutdown, malfunction reports.* If you have a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified § 63.10(d)(5).

OTHER REQUIREMENTS AND INFORMATION

### § 63.3001 What sections of the general provisions apply to me?

You must comply with the requirements of the general provisions of 40 CFR part 63, subpart A, as specified in table 2 of this subpart.

### § 63.3002 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority, such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency is the primary enforcement authority. If the Administrator has not delegated authority to your State, only EPA enforces this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not transferred to the State, local, or tribal agency.

(1) The authority under § 63.6(g) to approve alternatives to the emission limits in § 63.2983 and operating limits in § 63.2984 is not delegated.

(2) The authority under § 63.7(e)(2)(ii) and (f) to approve of major alternatives (as defined in § 63.90) to the test methods in § 63.2993 is not delegated.

(3) The authority under § 63.8(f) to approve major alternatives (as defined in § 63.90) to the monitoring requirements in §§ 63.2996 and 63.2997 is not delegated.

(4) The authority under § 63.10(f) to approve major alternatives (as defined in § 63.90) to recordkeeping, notification, and reporting requirements in §§ 63.2998 through 63.3000 is not delegated.

### § 63.3003 Incorporation by reference.

(a) The following material is incorporated by reference and referred to at § 63.2984: chapters 3 and 5 of ''Industrial

Ventilation: A Manual of Recommended Practice,'' American Conference of Governmental Industrial Hygienists, (23rd edition, 1998). The incorporation by reference of this material is approved by the Director of the Office of the Federal Register as of the date of publication of the final rule according to 5 U.S.C. 552(a) and 1 CFR part 51. This material is incorporated as it exists on the date of approval and notice of any change in the material will be published in the FEDERAL REGISTER.

(b) The materials referenced in this section are incorporated by reference and are available for inspection at the National Archives and Records Administration (NARA); and at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street SW, Washington, DC. For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal__register/code__of__federal__regulations/ibr__locations.html*. The material is also available for purchase from the following address: Customer Service Department, American Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240, telephone number (513) 742–2020.

[67 FR 17835, Apr. 11, 2002, as amended at 69 FR 18803, Apr. 9, 2004]

### § 63.3004 What definitions apply to this subpart?

Terms used in this subpart are defined the Clean Air Act, in § 63.2, and in this section as follows:

*Administrator* means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

*Binder application vacuum exhaust* means the exhaust from the vacuum system used to remove excess resin solution from the wet-formed fiberglass mat before it enters the drying and curing oven.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limit, or operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Drying and curing oven* means the process section that evaporates excess moisture from a fiberglass mat and cures the resin that binds the fibers.

*Emission limitation* means an emission limit, operating limit, or work practice standard.

*Fiberglass mat production rate* means the weight of finished fiberglass mat produced per hour of production including any trim removed after the binder is applied and before final packaging.

*Loss-on-ignition* means the percentage decrease in weight of fiberglass mat measured before and after it has been ignited to burn off the applied binder. The loss-on-ignition is used to monitor the weight percent of binder in fiberglass mat.

*Nonwoven wet-formed fiberglass mat manufacturing* means the production of a fiberglass mat by bonding glass fibers to each other using a resin solution. Nonwoven wet-formed fiberglass mat manufacturing is also referred to as wet-formed fiberglass mat manufacturing.

*Roofing square* means the amount of finished product needed to cover an area 10 feet by 10 feet (100 square feet) of finished roof.

*Thermal oxidizer* means an air pollution control device that uses controlled flame combustion inside a combustion chamber to convert combustible materials to noncombustible gases.

*Urea-formaldehyde content in binder formulation* means the mass-based percent of urea-formaldehyde resin in the total binder mix as it is applied to the glass fibers to form the mat.

**§§ 63.3005–63.3079 [Reserved]**

TABLE 1 TO SUBPART HHHH OF PART 63—MINIMUM REQUIREMENTS FOR MONITORING AND RECORDKEEPING

As stated in §63.2998(c), you must comply with the minimum requirements for monitoring and recordkeeping in the following table:

| You must monitor these parameters: | At this frequency: | And record for the monitored perameter: |
|---|---|---|
| 1. Thermal oxidizer temperature [a] | Continuously | 15-minute and 3-hour block averages. |
| 2. Other process or control device parameters specified in your OMM [b] plan. | As specified in your OMM plan | As specified in your OMM plan. |
| 3. Urea-formaldehyde resin solids application rate. | On each operating day, calculate the average lb/hr application rate for each product manufactured during that day. | The average lb/hr value for each product manufactured during the day. |
| 4. Resin free-formaldehyde content | For each lot of resin purchased | The value for each lot used during the operating day. |
| 5. Loss-on-ignition [c] | Measured at least once per day, for each product manufactured during that day. | The value for each product manufactured during the operating day. |
| 6. UF-to-latex ratio in the binder [c] | For each batch of binder prepared the operating day. | The value for each batch of binder prepared during the operating day. |
| 7. Weight of the final mat product per square (lb/roofing square)[c]. | Each product manufactured during the operating day. | The value for each product manufactured during the operating day. |
| 8. Average nonwoven wet-formed fiberglass mat production rate (roofing squares per the hour) [c]. | For each product manufactured during the operating day. | The average value for each product manufactured during operating day. |

[a] Required if a thermal oxidizer is used to control formaldehyde emissions.
[b] Required if process modifications or a control device other than a thermal oxidizer is used to control emissions.
[c] These parameters must be monitored and values recorded, but no operating limits apply.

TABLE 2 TO SUBPART HHHH OF PART 63—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART HHHH

As stated in §63.3001, you must comply with the applicable General Provisions requirements according to the following table:

| Citation | Requirement | Applies to subpart HHHH | Explanation |
|---|---|---|---|
| §63.1(a)(1)–(4) | General Applicability | Yes. | |
| §63.1(a)(5) | | No | [Reserved]. |
| §63.1(a)(6)–(8) | | Yes. | |
| §63.1(a)(9) | | No | [Reserved]. |
| §63.1(a)(10)–(14) | | Yes. | |
| §63.1(b) | Initial Applicability Determination | Yes. | |
| §63.1(c)(1) | Applicability After Standard Established. | Yes. | |
| §63.1(c)(2) | | Yes | Some plants may be area sources. |
| §63.1(c)(3) | | No | [Reserved]. |
| §63.1(c)(4)–(5) | | Yes. | |
| §63.1(d) | | No | [Reserved]. |
| §63.1(e) | Applicability of Permit Program | Yes. | |
| §63.2 | Definitions | Yes | Additional definitions in §63.3004. |
| §63.3 | Units and Abbreviations | Yes. | |
| §63.4(a)(1)–(3) | Prohibited Activities | Yes. | |
| §63.4(a)(4) | | No | [Reserved]. |
| §63.4(a)(5) | | Yes. | |
| §63.4(b)–(c) | Circumvention/Severability | Yes. | |
| §63.5(a) | Construction/Reconstruction | Yes. | |
| §63.5(b)(1) | Existing/Constructed/Reconstruction. | Yes. | |
| §63.5(b)(2) | | No | [Reserved]. |
| §63.5(b)(3)–(6) | | Yes. | |
| §63.5(c) | | No | [Reserved]. |
| §63.5(d) | Application for Approval of Construction/Reconstruction. | Yes. | |

| Citation | Requirement | Applies to subpart HHHH | Explanation |
|---|---|---|---|
| § 63.5(e) | Approval of Construction/Reconstruction. | Yes. | |
| § 63.5(f) | Approval of Construction/Reconstruction Based on State Review. | Yes. | |
| § 63.6(a) | Compliance with Standards and Maintenance—Applicability. | Yes. | |
| § 63.6(b)(1)–(5) | New and Reconstructed Sources-Dates. | Yes. | |
| § 63.6(b)(6) | | No | [Reserved]. |
| § 63.6(b)(7) | | Yes. | |
| § 63.6(c)(1)–(2) | Existing Sources Dates | Yes | § 63.2985 specifies dates. |
| § 63.6(c)(3)–(4) | | No | [Reserved]. |
| § 63.6(c)(5) | | Yes. | |
| § 63.6(d) | | No | [Reserved]. |
| § 63.6(e) | Operation and Maintenance Requirements. | Yes | §§ 63.2984 and 63.2987 specify additional requirements. |
| § 63.6(f) | Compliance with Emission Standards. | Yes. | |
| § 63.6(g) | Alternative Standard | Yes | EPA retains approval authority. |
| § 63.6(h) | Compliance with Opacity/Visible Emissions Standards. | No | Subpart HHHH does not specify opacity or visible emission standards. |
| § 63.6(i)(1)–(14) | Extension of Compliance | Yes. | |
| § 63.6(i)(15) | | No | [Reserved]. |
| § 63.6(i)(16) | | Yes. | |
| § 63.6(j) | Exemption from Compliance | Yes. | |
| § 63.7(a) | Performance Test Requirements—Applicability and Dates. | Yes. | |
| § 63.7(b) | Notification of Performance Test | Yes. | |
| § 63.7(c) | Quality Assurance Program/Test Plan. | Yes. | |
| § 63.7(d) | Testing Facilities | Yes. | |
| § 63.7(e) | Conduct of Tests | Yes | § 63.2991–63.2994 specify additional requirements. |
| § 63.7(f) | Alternative Test Method | Yes | EPA retains approval authority |
| § 63.7(g) | Data Analysis | Yes. | |
| § 63.7(h) | Waiver of Tests | Yes. | |
| § 63.8(a)(1)–(2) | Monitoring Requirements—Applicability. | Yes. | |
| § 63.8(a)(3) | | No | [Reserved]. |
| § 63.8(a)(4) | | Yes. | |
| § 63.8(b) | Conduct of Monitoring | Yes. | |
| § 63.8(c)(1)–(3) | Continuous Monitoring System (CMS) Operation and Maintenance. | Yes. | |
| § 63.8(c)(4) | | Yes. | |
| § 63.8(c)(5) | | No | Subpart HHHH does not specify opacity or visible emission standards |
| § 63.8(c)(6)–(8) | | Yes. | |
| § 63.8(d) | Quality Control | Yes. | |
| § 63.8(e) | CMS Performance Evaluation | Yes. | |
| § 63.8(f)(1)–(5) | Alternative Monitoring Method | Yes | EPA retains approval authority |
| § 63.8(f)(6) | Alternative to Relative Accuracy Test. | No | Subpart HHHH does not require the use of continuous emissions monitoring systems (CEMS) |
| § 63.8(g)(1) | Data Reduction | Yes. | |
| § 63.8(g)(2) | Data Reduction | No | Subpart HHHH does not require the use of CEMS or continuous opacity monitoring systems (COMS). |
| § 63.8(g)(3)–(5) | Data Reduction | Yes. | |
| § 63.9(a) | Notification Requirements—Applicability. | Yes. | |
| § 63.9(b) | Initial Notifications | Yes. | |
| § 63.9(c) | Request for Compliance Extension. | Yes. | |
| § 63.9(d) | New Source Notification for Special Compliance Requirements. | Yes. | |
| § 63.9(e) | Notification of Performance Test. | Yes. | |

| Citation | Requirement | Applies to subpart HHHH | Explanation |
|---|---|---|---|
| §63.9(f) | Notification of Visible Emissions/ Opacity Test. | No | Subpart HHHH does not specify opacity or visible emission standards. |
| §63.9(g)(1) | Additional CMS Notifications | Yes. | |
| §63.9(g)(2)–(3) | | No | Subpart HHHH does not require the use of COMS or CEMS. |
| §63.9(h)(1)–(3) | Notification of Compliance Status. | Yes | §63.3000(b) specifies additional requirements. |
| §63.9(h)(4) | | No | [Reserved]. |
| §63.9(h)(5)–(6) | | Yes. | |
| §63.9(i) | Adjustment of Deadlines | Yes. | |
| §63.9(j) | Change in Previous Information | Yes. | |
| §63.10(a) | Recordkeeping/Reporting—Applicability. | Yes. | |
| §63.10(b) | General Recordkeeping Requirements. | Yes | §63.2998 includes additional requirements. |
| §63.10(c)(1) | Additional CMS Recordkeeping | Yes. | |
| §63.10(c)(2)–(4) | | No | [Reserved]. |
| §63.10(c)(5)–(8) | | Yes. | |
| §63.10(c)(9) | | No | [Reserved]. |
| §63.10(c)(10)–(15) | | Yes. | |
| §63.10(d)(1) | General Reporting Requirements | Yes | §63.3000 includes additional requirements. |
| §63.10(d)(2) | Performance Test Results | Yes | §63.3000 includes additional requirements |
| §63.10(d)(3) | Opacity or Visible Emissions Observations. | No | Subpart HHHH does not specify opacity or visible emission standards. |
| §63.10(d)(4)–(5) | Progress Reports/Startup, Shutdown, and Malfunction Reports. | Yes. | |
| §63.10(e)(1) | Additional CMS Reports—General. | No | Subpart HHHH does not require CEMS. |
| §63.10(e)(2) | Reporting results of CMS performance evaluations. | Yes. | |
| §63.10(e)(3) | Excess Emission/CMS Performance Reports. | Yes. | |
| §63.10(e)(4) | COMS Data Reports | No | Subpart HHHH does not specify opacity or visible emission standards. |
| §63.10(f) | Recordkeeping/Reporting Waiver | Yes | EPA retains approval authority |
| §63.11 | Control Device Requirments—Applicability. | No | Facilities subject to subpart HHHH do not use flares as control devices. |
| §63.12 | State Authority and Delegations | Yes. | |
| §63.13 | Addresses | Yes. | |
| §63.14 | Incorporation by Reference | No. | |
| §63.15 | Availability of Information/Confidentiality. | Yes. | |

## APPENDIX A TO SUBPART HHHH OF PART 63—METHOD FOR DETERMINING FREE-FORMALDEHYDE IN UREA-FORMALDEHYDE RESINS BY SODIUM SULFITE (ICED & COOLED)

### 1.0 Scope

This procedure corresponds to the Housing and Urban Development method of determining free-formaldehyde in urea-formaldehyde resins. This method applies to samples that decompose to yield formaldehyde under the conditions of other free-formaldehyde methods. The primary use is for urea-formaldehyde resins.

### 2.0 Part A—Testing Resins

Formaldehyde will react with sodium sulfite to form the sulfite addition products and liberate sodium hydroxide (NaOH); however, at room temperature, the methanol groups present will also react to liberate NaOH. Titrate at 0 degrees Celsius (( °deg;C) to minimize the reaction of the methanol groups.

*2.1 Apparatus Required.*

2.1.1 Ice crusher.

2.1.2 One 100-milliliter (mL) graduated cylinder.

2.1.3 Three 400-mL beakers.

2.1.4 One 50-mL burette.

2.1.5 Analytical balance accurate to 0.1 milligrams (mg).

2.1.6 Magnetic stirrer.

2.1.7 Magnetic stirring bars.

2.1.8 Disposable pipettes.
2.1.9 Several 5-ounce (oz.) plastic cups.
2.1.10 Ice cube trays (small cubes).
*2.2 Materials Required.*
2.2.1 Ice cubes (made with distilled water).
2.2.2 A solution of 1 molar (M) sodium sulfite ($Na_2SO_3$) (63 grams (g) $Na_2SO_3$/500 mL water ($H_2O$) neutralized to thymolphthalein endpoint).
2.2.3 Standardized 0.1 normal (N) hydrochloric acid (HCl).
2.2.4 Thymolphthalein indicator (1.0 g thymolphthalein/199 g methanol).
2.2.5 Sodium chloride (NaCl) (reagent grade).
2.2.6 Sodium hydroxide (NaOH).
*2.3 Procedure.*
2.3.1 Prepare sufficient quantity of crushed ice for three determinations (two trays of cubes).
2.3.2 Put 70 cubic centimeters (cc) of 1 M $Na_2SO_3$ solution into a 400-mL beaker. Begin stirring and add approximately 100 g of crushed ice and 2 g of NaCl. Maintain 0 °C during test, adding ice as necessary.
2.3.3 Add 10–15 drops of thymolphthalein indicator to the chilled solution. If the solution remains clear, add 0.1 N NaOH until the solution turns blue; then add 0.1 N HCl back to the colorless endpoint. If the solution turns blue upon adding the indicator, add 0.1 N HCl to the colorless endpoint.
2.3.4 On the analytical balance, accurately weigh the amount of resin indicated under the ''*Resin Sample Size*'' chart (see below) as follows.

RESIN SAMPLE SIZE

| Approximate free HCHO (percent) | Sample weight (gram(s)) |
|---|---|
| <0.5 | 10 |
| 0.5–1.0 | 5 |
| 1.0–3.0 | 2 |
| 3.0 | 1 |

2.3.4.1 Pour about 1 inch of resin into a 5 oz. plastic cup.
2.3.4.2 Determine the gross weight of the cup, resin, and disposable pipette (with the narrow tip broken off) fitted with a small rubber bulb.
2.3.4.3 Pipette out the desired amount of resin into the stirring, chilled solution (approximately 1.5 to 2 g per pipette-full).
2.3.4.4 Quickly reweigh the cup, resin, and pipette with the bulb.
2.3.4.5 The resultant weight loss equals the grams of resin being tested.
2.3.5 Rapidly titrate the solution with 0.1 N HCl to the colorless endpoint described in Step 3 (2.3.3).
2.3.6 Repeat the test in triplicate.
*2.4 Calculation.*
2.4.1 The percent free-formaldehyde (%HCHO) is calculated as follows:

$$\%\mathrm{HCHO} = \frac{(\text{mL 0.1 N HCl})\ (\text{N of Acid})\ (3.003)}{\text{Weight of Sample}}$$

2.4.2 Compute the average percent free-formaldehyde of the three tests.
(NOTE: If the results of the three tests are not within a range of ±0.5 percent or if the average of the three tests does not meet expected limits, carry out Part B and then repeat Part A.)

## 3.0 Part B—Standard Check

Part B ensures that test reagents used in determining percent free-formaldehyde in urea-formaldehyde resins are of proper concentration and that operator technique is correct. Should any doubts arise in either of these areas, the formaldehyde standard solution test should be carried out.
*3.1 Preparation and Standardization of a 1 Percent Formalin Solution.*
Prepare a solution containing approximately 1 percent formaldehyde from a stock 37 percent formalin solution. Standardize the prepared solution by titrating the hydroxyl ions resulting from the formation of the formaldehyde bisulfite complex.
*3.2 Apparatus Required.*
NOTE: All reagents must be American Chemical Society analytical reagent grade or better.
3.2.1 One 1-liter (L) volumetric flask (class A).
3.2.2 One 250-mL volumetric flask (class A).
3.2.3 One 250-mL beaker.
3.2.4 One 100-mL pipette (class A).
3.2.5 One 10-mL pipette (class A).
3.2.6 One 50-mL graduated cylinder (class A).
3.2.7 A pH meter, standardized using pH 7 and pH 10 buffers.
3.2.8 Magnetic stirrer.
3.2.9 Magnetic stirring bars.
3.2.10 Several 5-oz. plastic cups.
3.2.11 Disposal pipettes.
3.2.12 Ice cube trays (small cubes).
*3.3 Materials Required.*
3.3.1 A solution of 37 percent formalin.
3.3.2 Anhydrous $Na_2SO_3$.
3.3.3 Distilled water.

3.3.4 Standardized 0.100 N HCl.

3.3.5 Thymolphthalein indicator (1.0 g thymolphthalein/199 g methanol).

*3.4 Preparation of Solutions and Reagents.*

3.4.1 Formaldehyde Standard Solution (approximately 1 percent). Measure, using a graduated cylinder, 27.0 mL of analytical reagent 37 percent formalin solution into a 1-L volumetric flask. Fill the flask to volume with distilled water.

(NOTE: You must standardize this solution as described in section 3.5. This solution is stable for 3 months.)

3.4.2 Sodium Sulfite Solution 1.0 M (used for standardization of Formaldehyde Standard Solution). Quantitatively transfer, using distilled water as the transfer solvent, 31.50 g of anhydrous $Na_2SO_3$ into a 250-mL volumetric flask. Dissolve in approximately 100 mL of distilled water and fill to volume.

(NOTE: You must prepare this solution daily, but the calibration of the Formaldehyde Standard Solution needs to be done only once.)

3.4.3 Hydrochloric Acid Standard Solution 0.100 M. This reagent should be readily available as a primary standard that only needs to be diluted.

*3.5 Standardization.*

3.5.1 Standardization of Formaldehyde Standard Solution.

3.5.1.1 Pipette 100.0 mL of 1 M sodium sulfite into a stirred 250-mL beaker.

3.5.1.2 Using a standardized pH meter, measure and record the pH. The pH should be around 10. It is not essential the pH be 10; however, it is essential that the value be accurately recorded.

3.5.1.3 To the stirring $Na_2SO_3$ solution, pipette in 10.0 mL of Formaldehyde Standard Solution. The pH should rise sharply to about 12.

3.5.1.4 Using the pH meter as a continuous monitor, titrate the solution back to the original exact pH using 0.100 N HCl. Record the milliliters of HCl used as titrant. (NOTE: Approximately 30 to 35 mL of HCl will be required.)

3.5.1.5 Calculate the concentration of the Formaldehyde Standard Solution using the equation as follows:

$$\%\text{HCHO} = \frac{(\text{mL HCl})\ (\text{N HCl})\ (3.003)}{\text{mL sample}}$$

*3.6 Procedure.*

3.6.1 Prepare a sufficient quantity of crushed ice for three determinations (two trays of cubes).

3.6.2 Put 70 cc of 1 M $Na_2SO_3$ solution into a 400-mL beaker. Begin stirring and add approximately 100 g of crushed ice and 2 g NaCl. Maintain 0 °C during the test, adding ice as necessary.

3.6.3 Add 10–15 drops of thymolphthalein indicator to the chilled solution. If the solution remains clear, add 0.1 N NaOH until the solution turns blue; then add 0.1 N HCl back to the colorless endpoint. If the solution turns blue upon adding the indicator, add 0.1 N HCl to the colorless endpoint.

3.6.4 On the analytical balance, accurately weigh a sample of Formaldehyde Standard Solution as follows.

3.6.4.1 Pour about 0.5 inches of Formaldehyde Standard Solution into a 5-oz. plastic cup.

3.6.4.2 Determine the gross weight of the cup, Formaldehyde Standard Solution, and a disposable pipette fitted with a small rubber bulb.

3.6.4.3 Pipette approximately 5 g of the Formaldehyde Standard Solution into the stirring, chilled $Na_2SO_3$ solution.

3.6.4.4 Quickly reweigh the cup, Formaldehyde Standard Solution, and pipette with the bulb.

3.6.4.5 The resultant weight loss equals the grams of Formaldehyde Standard Solution being tested.

3.6.5 Rapidly titrate the solution with 0.1 N HCl to the colorless endpoint in Step 3 (3.6.3).

3.6.6 Repeat the test in triplicate.

*3.7 Calculation for Formaldehyde Standard Solution.*

3.7.1 The percent free-formaldehyde (% HCHO) is calculated as follows:

$$\%\text{HCHO} = \frac{(\text{mL 0.1 N HCl})(\text{N Acid})(3.003)}{\text{Weight of Formaldehyde Standard Solution}}$$

3.7.2 The range of the results of three tests should be no more than ±5 percent of the actual Formaldehyde Standard Solution concentration. Report results to two decimal places.

*3.8 Reference.*

West Coast Adhesive Manufacturers Trade Association Test 10.1.

APPENDIX B TO SUBPART HHHH OF PART 63—METHOD FOR THE DETERMINATION OF LOSS-ON-IGNITION

1.0 Purpose

The purpose of this test is to determine the loss-on-ignition (LOI) of wet-formed fiberglass mat.

2.0 Equipment

2.1 Scale sensitive to 0.001 gram (g).
2.2 Drying oven equipped with a means of constant temperature regulation and mechanical air convection.
2.3 Furnace designed to heat to at least 625 °C (1,157 °F) and controllable to ±25 °C (±45 °F).
2.4 Crucible, high form, 250 milliliter (mL).
2.5 Desiccator.
2.6 Pan balance (see Note 2 in 4.9)

3.0 Sample Collection Procedure

3.1 Obtain a sample of mat in accordance with Technical Association of the Pulp and Paper Industry (TAPPI) method 1007 ''Sample Location.''
3.2 Use a 5- to 10-g sample cut into pieces small enough to fit into the crucible.
3.3 Place the sample in the crucible. (NOTE 1: To test without the use of a crucible, see Note 2 after Section 4.8.)
3.4 Condition the sample in the furnace set at 105 ±3 °C (221 ±9 °F) for 5 minutes ±30 seconds.

4.0 Procedure

4.1 Condition each sample by drying for 5 minutes ±30 seconds at 105 ±3 °C (22 ±5 °F).
4.2 Remove the test sample from the furnace and cool in the desiccator for 30 minutes in the standard atmosphere for testing glass textiles.
4.3 Place the empty crucible in the furnace at 625 ±25 °C (1,157 ±45 °F). After 30 minutes, remove and cool the crucible in the standard atmosphere (TAPPI method 1008) for 30 minutes.
4.4 Identify each crucible with respect to each test sample of mat.
4.5 Weigh the empty crucible to the nearest 0.001 g. Record this weight as the tare mass, T.
4.6 Place the test sample in the crucible and weigh to the nearest 0.001 g. Record this weight as the initial mass, A.
4.7 Place the test sample and crucible in the furnace and ignite at 625 ±25 °C (1,157 ±45 °F).
4.8 After ignition for at least 30 minutes, remove the test sample and crucible from the furnace and cool in the desiccator for 30 minutes in the standard atmosphere (TAPPI method 1008).
4.9 Remove each crucible, and test each sample separately from the desiccator, and immediately weigh each sample to the nearest 0.001 g. Record this weight as the ignited mass, B. (NOTE 2: When it is known that no ash residue separates from the test sample during the weighing and igniting processes, you may weigh the sample separately without the crucible. When this occurs, the tare mass (T) equals zero. With appropriate care, you can dry and weigh a single piece of mat and place with tongs into the ignition oven on appropriate refractory supports. When the ignition time is over, remove the sample as an intact fragile web and weigh it directly on a pan balance.)

5.0 Calculation

5.1 Calculate the LOI for each sample as follows:

$$\% \text{ LOI} = 100 \times (A - B)/(A - T)$$

Where:

A = initial mass of crucible and sample before ignition (g);
B = mass of crucible and glass residue after ignition (g); and
T = tare mass of crucible, (g) (see Note 2).

5.2 Report the percent LOI of the glass mat to the nearest 0.1 percent.

*6.0 Precision*

The repeatability of this test method for measurements on adjacent specimens from the same sample of mat is better than 1 percent.

# Subpart IIII—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

SOURCE: 69 FR 22623, Apr. 26, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

## § 63.3080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks. This subpart also establishes NESHAP for facilities which surface coat new other motor vehicle bodies or body parts for new other motor vehicles which you choose to include in your affected source pursuant to